

Appl. No. 10/674,060
Amnd dated October 13, 2005
Reply to Office Action of August 30, 2005

Remarks/Arguments

Claims 173, 175-188, 190-192, 194-222, 224, 225, 227-243 and 245-249 are pending in the above-captioned application. Claims 189 and 193 have been cancelled without prejudice or disclaimer herein as being redundant to other pending claims, with claims 174, 223, 226, and 244 having been cancelled in a previous amendment. Claims 173, 224 and 234 have been amended herein to more clearly claim the desired embodiments of the invention. These amendments introduce no new matter and support is replete throughout the specification. These amendments are made without prejudice to renewal of the claims in their original form and are not to be construed as abandonment or dedication of the previously claimed subject matter or agreement with any objection or rejection of record. Claims 246-249 have been added herein. Again, there is replete support throughout the specification for the subject matter of these new claims (e.g., see specification at paragraphs [0131, 0305-0318, 0341-0343]), and thus no new matter is entered.

I. Interview Summary

Initially, Applicants would like to thank the Examiner, the Examiner's SPE, Bill Baumeister, and Examiner Christian Wilson, for the courtesy extended to the undersigned and his colleagues David P. Stumbo and Donald J. Featherstone, for conducting an in-person interview on October 7, 2005 in which the claimed invention and potential amendments to the claims were discussed in view of the prior art of record. During the interview, Mr. Baumeister raised a few minor housekeeping matters which have been fully addressed herein.

In particular, Mr. Baumeister noted that the specification required amendment in order to complete the filing information left blank in paragraph [0008] therein. Applicants have amended the specification to correct such deficiency herein. In addition, Mr. Baumeister raised a potential new matter rejection by alleging that there may not be adequate support for Figure 49 which was added to the specification by previous amendment. However, Applicants assert that there is requisite support for Figure 49, which can be found, for example, in U.S. Provisional Patent Application Serial

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No. 60/474,065 filed May 29, 2003 at Figure 17 therein. U.S. Provisional Patent Application Serial No. 60/474,065 is one of the several applications to which the present application claims priority, and the '065 application is incorporated by reference into the present application. Thus, Applicants believe that no new matter is entered by the previous introduction of Figure 49 into the instant specification.

In addition, at the suggestion of Mr. Baumeister, claims 191 and 220 have been amended herein to make them more definite to remove any ambiguity from such claims.

II. Rejection Under 35 U.S.C. §102(b), §102(e) and §103(a)

Claims 173, 175-178, 180, 183-186, 193-197, 201, 202, 204-206 and 208 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Frey (U.S. Pat. 5,920,078) ("Frey"). Claims 173, 175, 181-187, 192-194, 196-201, 205, 219, 224, 225, 227-236, 239, 240, 242-243, and 245 were rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Avouris et al. (U.S. Publication 20020173083) ("Avouris"). Claims 173, 179, 191, 209-214, 218 and 220 were rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Skarupo et al. (U.S. Pat. 6,438,025) ("Skarupo"). Claims 188-190, 209, 215-217, 221, 222, 237, 238 and 241 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Avouris in view of Lieber (U.S. Publication 20020117659) ("Lieber").

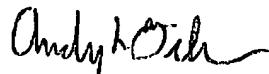
As discussed during the October 7, 2005 interview, Applicants believe that the claim amendments made to independent claims 173, 224 and 234 now distinguish the claimed invention over the prior art of record. In particular, with respect to independent claims 173 and 224, none of the prior art references of record including Frey, Avouris, Skarupo, and/or Lieber, alone or in combination, disclose a device including a substrate and a thin film on the substrate consisting essentially of semiconducting nanowires or semiconducting nanowires in solution, wherein at least two or more nanowires within the thin film of nanowires form a channel between each of one or more respective pairs of source and drain contacts. In addition, with respect to independent claim 234, none of the prior art references of record disclose a semiconductor device including a substrate, a

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plurality of nanowires deposited on the substrate forming a channel between a source and a drain contact of the device, and wherein each of the plurality of nanowires comprises a core made of a first material and a shell layer made of a compositionally different material disposed about the core.

In view of the foregoing amendments and remarks, Applicants believe that the present application is in condition for allowance and action toward that end is respectfully requested. If the Examiner believes that a telephone interview would expedite the examination of this application, the Examiner is requested to contact the undersigned at the telephone number below.

Respectfully submitted,



Andrew L. Filler
Reg. No. 44,107

NANOSYS, INC.
2625 Hanover Street
Palo Alto, CA 94304
Tel. (650) 331-2176
Fax (650) 331-2191